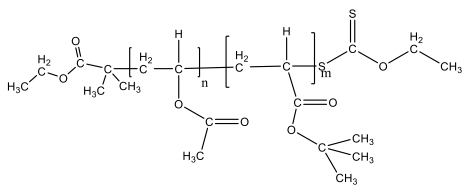


Sample Name:  
**Poly(vinyl acetate)-b-poly(tert-butyl acrylate)**

Sample #: **P42351-VActBuA**

**Structure:**



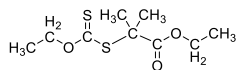
**Composition:**

$M_n \times 10^3$ VAc-b-tBuA	PDI
10.5-b-60.0	2.7

**Synthesis Procedure:**

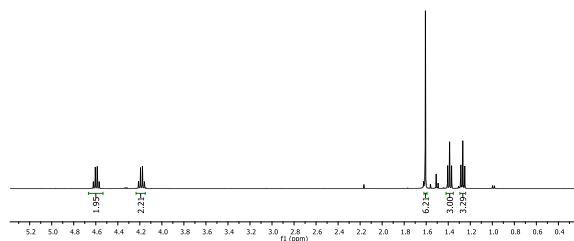
The polymer was synthesized by RAFT polymerization process using following RAFT reagent:

**Structure:**



Chemical Formula:  $C_5H_7NO_2$   
 Exact Mass: 236.05

**$^1H$  NMR spectrum of RAFT (400 MHz,  $CDCl_3$ ):**



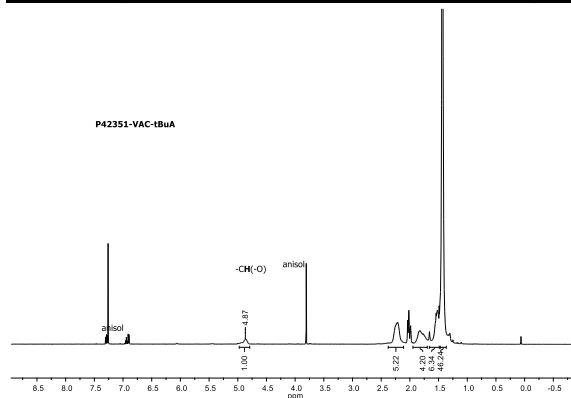
**Characterization:**

Poly(vinyl acetate) was characterized by size-exclusion chromatography (SEC) to estimate  $M_n$  (PS standards) and polydispersity (PDI). NMR was used to confirm structure.  $M_n$  of PVAc-b-PtBuA was estimated from NMR using SEC  $M_n$  of PVAc as a reference, and PDI was estimated from SEC.

**Solubility:**

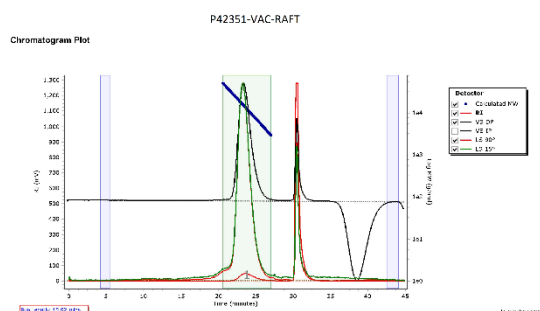
The polymer is soluble in THF, Acetone,  $CHCl_3$  and precipitates from Hexane.

**HNMR spectrum of PVAc-b-PtBuA Sample:**



**SEC elugram of the VAC-RAFT macroinitiator :**

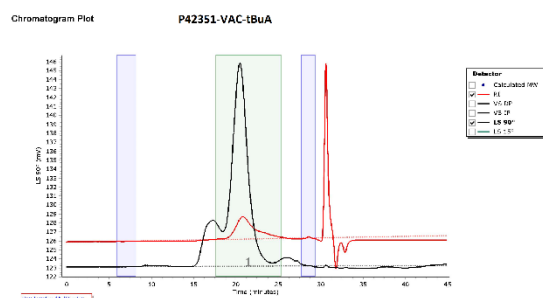
Agilent GPC/SEC Software



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mz (g/mol)	PD
Peak 1	13369	18625	12743	14545	19681	14555	1.201

**SEC of VAC-tBuA block copolymer:**

Agilent GPC/SEC Software



Peak	Mp (g/mol)	Mn (g/mol)	Mw (g/mol)	Mz (g/mol)	Mz+1 (g/mol)	Mz (g/mol)	PD
Peak 1	199835	70034	194158	389075	734876	377555	2.772